

§ 28.315

§ 28.315 Fire pumps, fire mains, fire hydrants, and fire hoses.

(a) Each vessel 36 feet (11.8 meters) or more in length must be equipped with a self-priming, power driven fire pump connected to a fixed piping system.

(1) A fire pump on a vessel 79 feet (24 meters) or more in length must be capable of delivering water simultaneously from the two highest hydrants, or from both branches of the fitting if the highest hydrant has a siamese fitting, at a pitot tube pressure of at least 50 psi (0.345 Newtons per square millimeter) and a flow rate of at least 80 gpm (303 liters per minute).

(2) Each vessel with a power driven fire pump must be equipped to permit energizing the fire main from the operating station and from the pump.

(b) *Fire main, hydrants, hoses and nozzles.*

(1) A vessel required to have a fixed fire main system must have a sufficient number of fire hydrants to reach any part of the vessel using a single length of fire hose.

(2) A fire hose must be connected to each fire hydrant at all times the vessel is operating.

(3) A fire hose on a vessel less than 79 feet (24 meters) in length must be at least $\frac{3}{8}$ inch (16 millimeters) nominal diameter, be of good commercial grade and be fitted with a nozzle of corrosion resistant material capable of providing a solid stream and a spray pattern.

(4) A fire hose on a vessel 79 feet (24 meters) or more in length must be lined commercial fire hose and be fitted with a nozzle made of corrosion resistant material capable of providing a solid stream and a spray pattern.

§ 28.320 Fixed gas fire extinguishing systems.

(a) *Requirements for vessels 79 feet (24 meters) or more in length.* A vessel 79 feet (24 meters) or more in length must be fitted with a fixed gas fire extinguishing system in the following enclosed spaces:

(1) A space containing an internal combustion engine of more than 50 horsepower;

(2) A space containing an oil fired boiler;

(3) An incinerator and;

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(4) A space containing a gasoline storage tank.

(b) *System types and alternatives.*

(1) A pre-engineered fixed gas fire extinguishing system may be installed only in a normally unoccupied machinery space, paint locker, or space containing flammable liquid stores that has a gross volume of not more than 33.98 cubic meters (1200 cubic feet).

(2) A fixed gas fire extinguishing system that is capable of automatic discharge upon heat detection may be installed only in a normally unoccupied space with a gross volume of not more than 169.92 cubic meters (6000 cubic feet).

(3) A space with a gross volume exceeding 169.92 cubic meters (6000 cubic feet) must be fitted with a manually actuated and alarmed fixed gas fire extinguishing system.

(c) *General requirements.*

(1) A fixed gas fire extinguishing system aboard a vessel must be approved by the Commandant and be custom engineered, unless the system meets the requirements for a pre-engineered fixed gas fire extinguishing system in paragraph (d) of this section.

(2) System components must be listed and labeled by an independent, nationally recognized testing laboratory for the system being installed.

(3) System design and installation must be in accordance with the Manufacturer's Marine Design, Installation, Operation, and Maintenance Manual approved for the system by the Commandant.

(4) A fixed gas fire extinguishing system may protect more than one space. The quantity of extinguishing agent must be at least sufficient for the largest space protected by the system.

(d) *Pre-engineered fixed gas fire extinguishing systems.*

(1) A pre-engineered fixed gas fire extinguishing system must:

(i) Be approved by the Commandant;

(ii) Be capable of manual actuation from outside the space in addition to any automatic actuation devices; and

(iii) Automatically shut down all power ventilation systems serving the protected space and all engines that draw intake air from within the protected space.